

ELECTRICALLY CONNECTING INTEGRATED CIRCUITS AND TRANSDUCERS

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ABSTRACT

5 Apparatus and methods of electrically connecting integrated circuits and transducers are described. In particular, a transducer includes a base mountable on a substrate (e.g., a printed circuit board), and an input/output (I/O) lead configured to contact an I/O lead of an integrated circuit mounted on the substrate. The transducer may be mounted on the substrate to contact the transducer I/O lead to the integrated circuit I/O lead. The transducer I/O lead is configured to electrically connect to the integrated circuit I/O lead independently of any electrically conductive path of the substrate. The direct 10 electrical connection between the transducer and the integrated circuit provides a high-speed communication channel that avoids the parasitic and high-inductance limitations generally associated with conventional metallic printed circuit board traces. At the same 15 time, the transducer is compatible with existing printed circuit board technologies and integrate circuit technologies and, therefore, may be readily integrated into existing computer systems.